

1

2

3

4

CHANGES REV01 to REV02

- 1) MAC EEPROM Address patch fixed on PCB
- 2) lib components update

A

A

B

B


C

C

D

D

Assembly variant	93E11-A
Created by	VY
Modified by	VY
Modified at	2019-07-08
SVN Version	8496

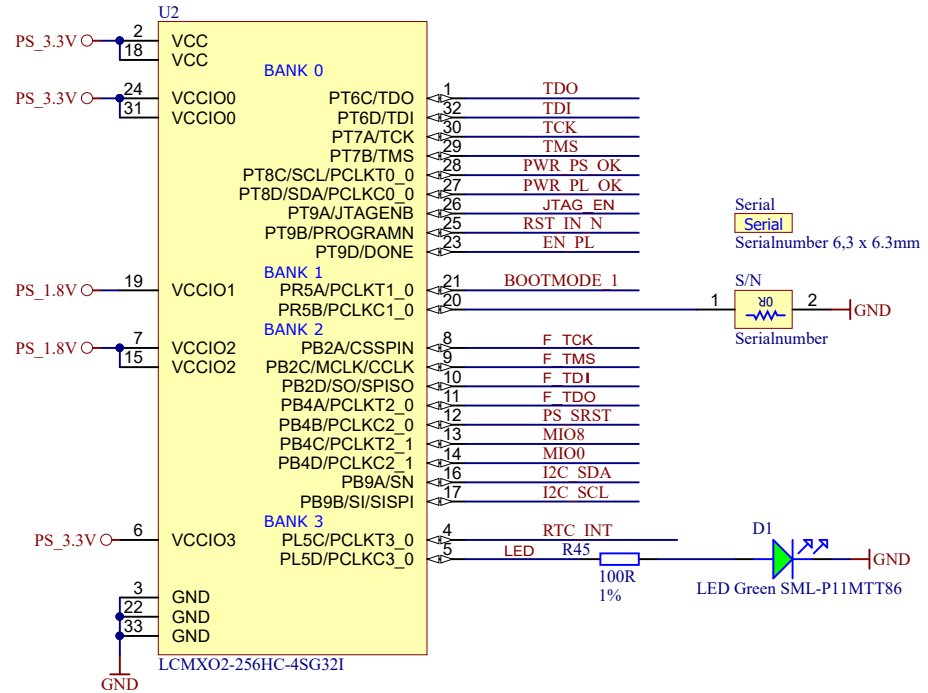
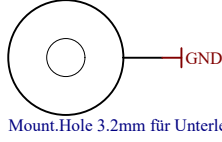
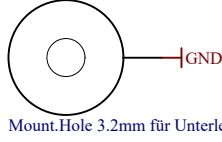
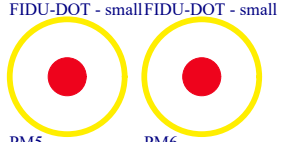
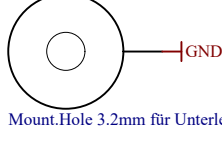
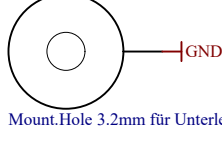
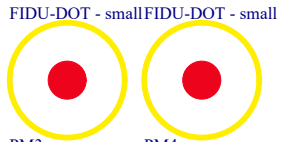
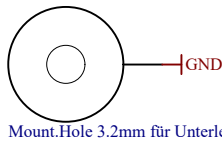
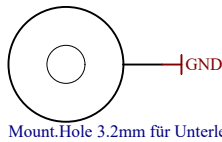
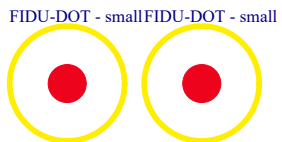
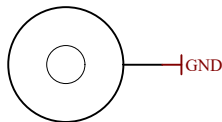
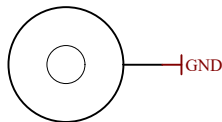
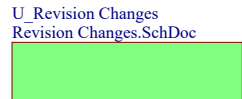
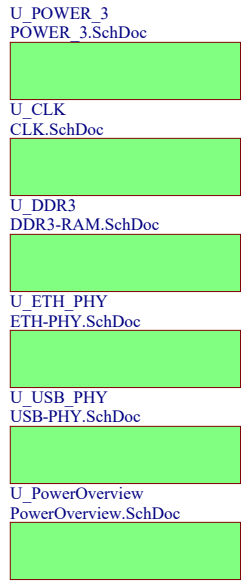
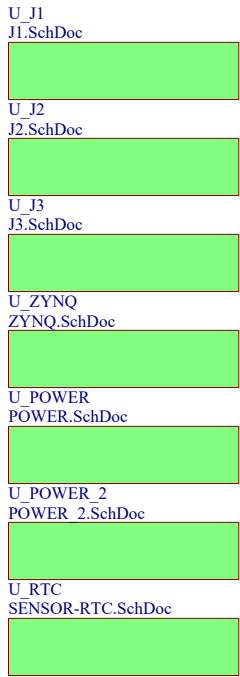
	Title: TE0745		
	A4	Number: 1 93E11-A	Rev. 02
	Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page1 of 25
	Filename: Revision Changes.SchDoc		

1

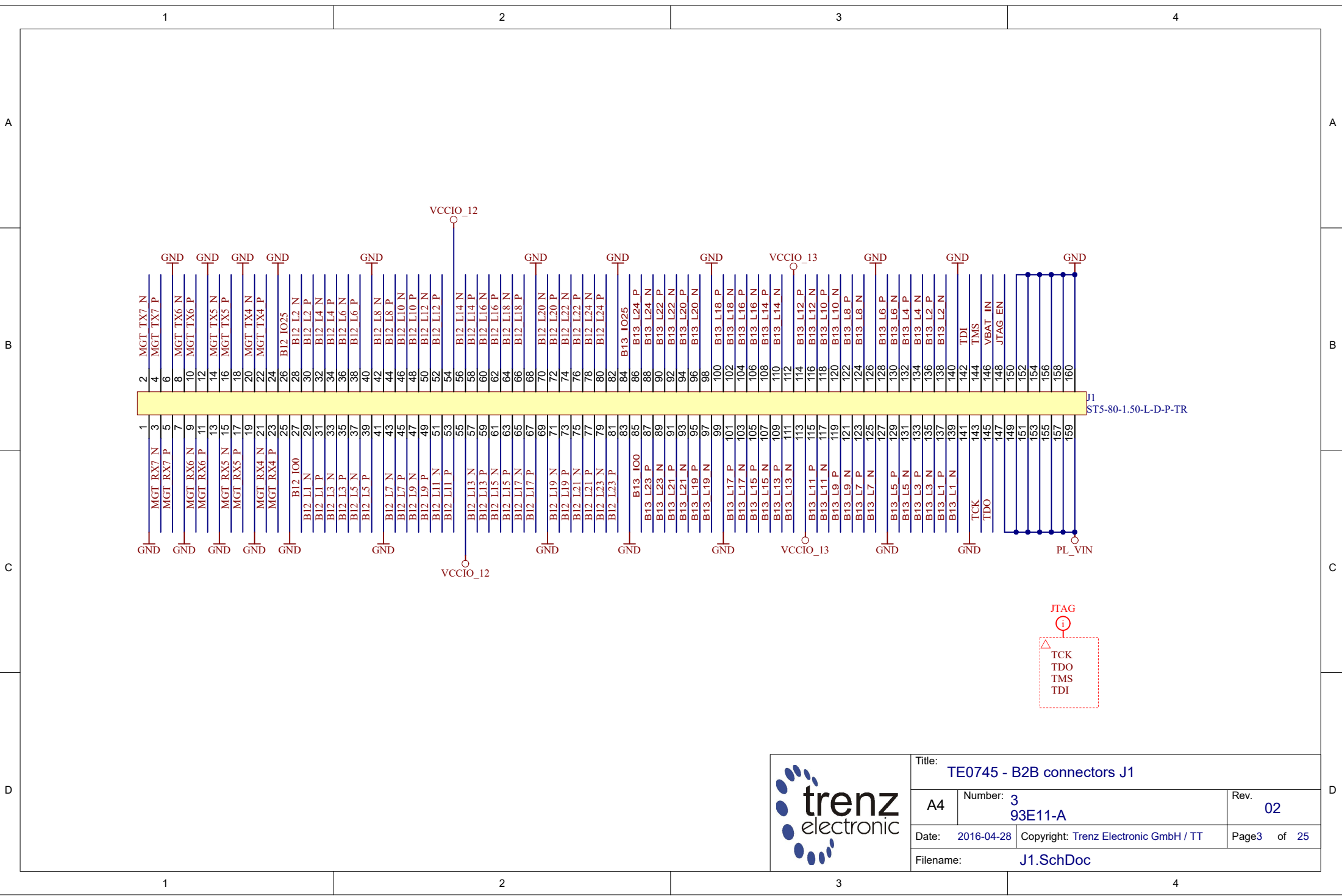
2

3

4



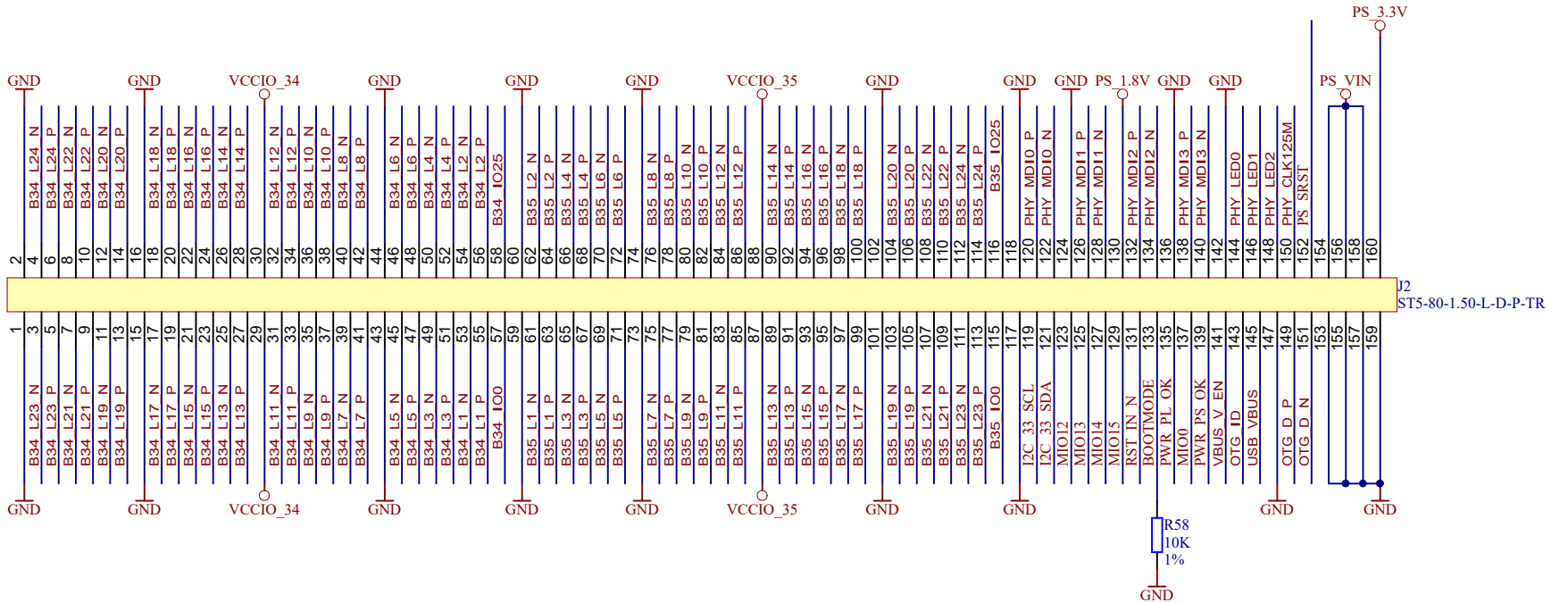
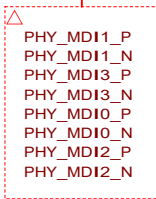
	Title: TE0745	
	A4	Number: 2 93E11-A
	Date: 2016-04-28	Rev. 02
	Copyright: Trenz Electronic GmbH / TT	Page2 of 25
Filename: TE0745.SchDoc		



Title: TE0745 - B2B connectors J1		
A4	Number: 3 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page3 of 25
Filename: J1.SchDoc		

ETH\_MDI

1

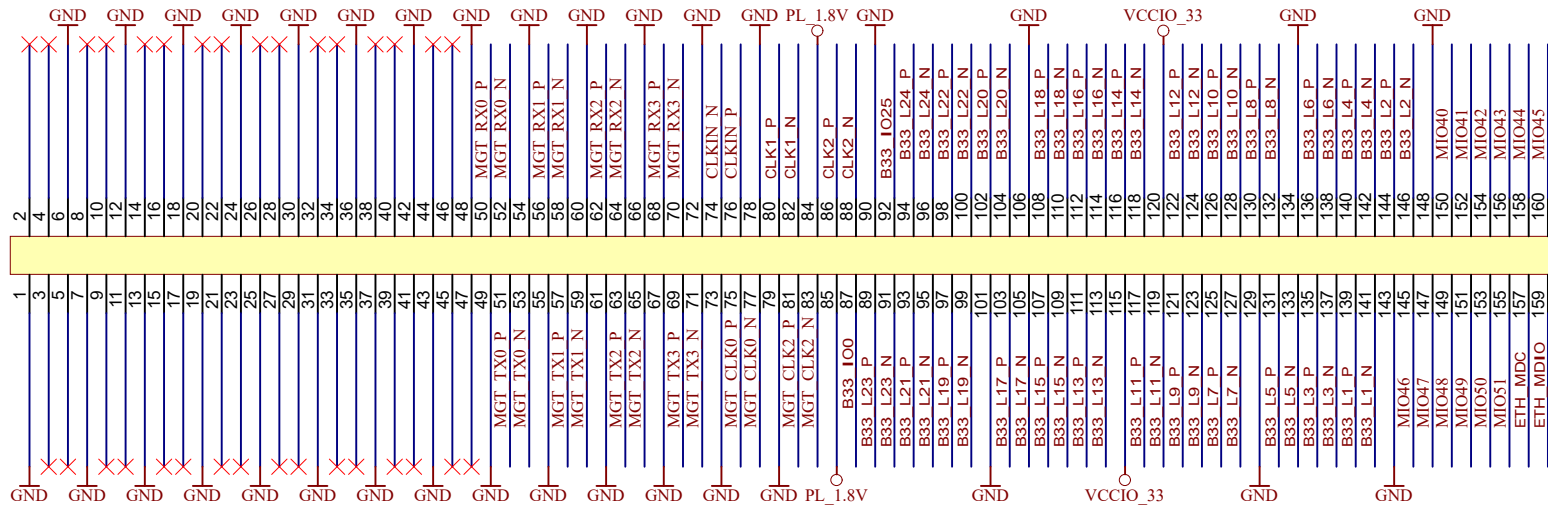


J2 ST5-80-1.50-L-D-P-TR




Title: TE0745 - B2B connectors J2		
A4	Number: 4 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page4 of 25
Filename: J2.SchDoc		

RESERVED for additional 8 GTX lanes



J3 ST5-80-1.50-L-D-P-TR



Title: TE0745 - B2B connectors J3		
A4	Number: 5 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page5 of 25
Filename: J3.SchDoc		

1

2

3

4

U\_B12  
B12.SchDoc



U\_B500  
MIO\_B500.SchDoc



U\_B13  
B13.SchDoc



U\_PS\_DDR  
PS-DDR.SchDoc



U\_B33  
B33.SchDoc



U\_MISC  
ZYNQ\_MISC.SchDoc



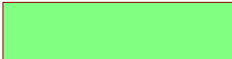
U\_B34  
B34.SchDoc



U\_ZYNQ\_POWER  
ZYNQ\_POWER.SchDoc



U\_B35  
B35.SchDoc



U\_FPGA\_MGT  
FPGA\_MGT.SchDoc



A

A

B

B

C

C

D


D

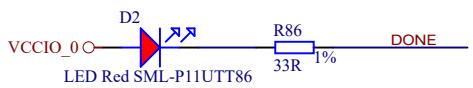
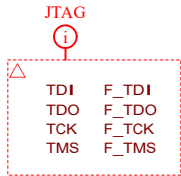
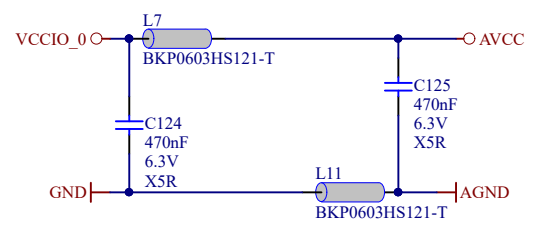
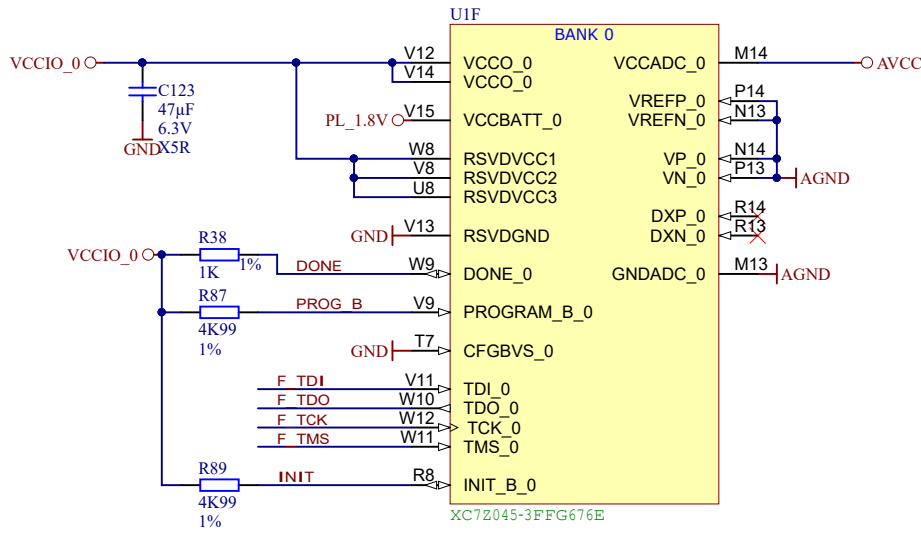
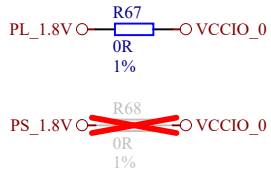
1

2

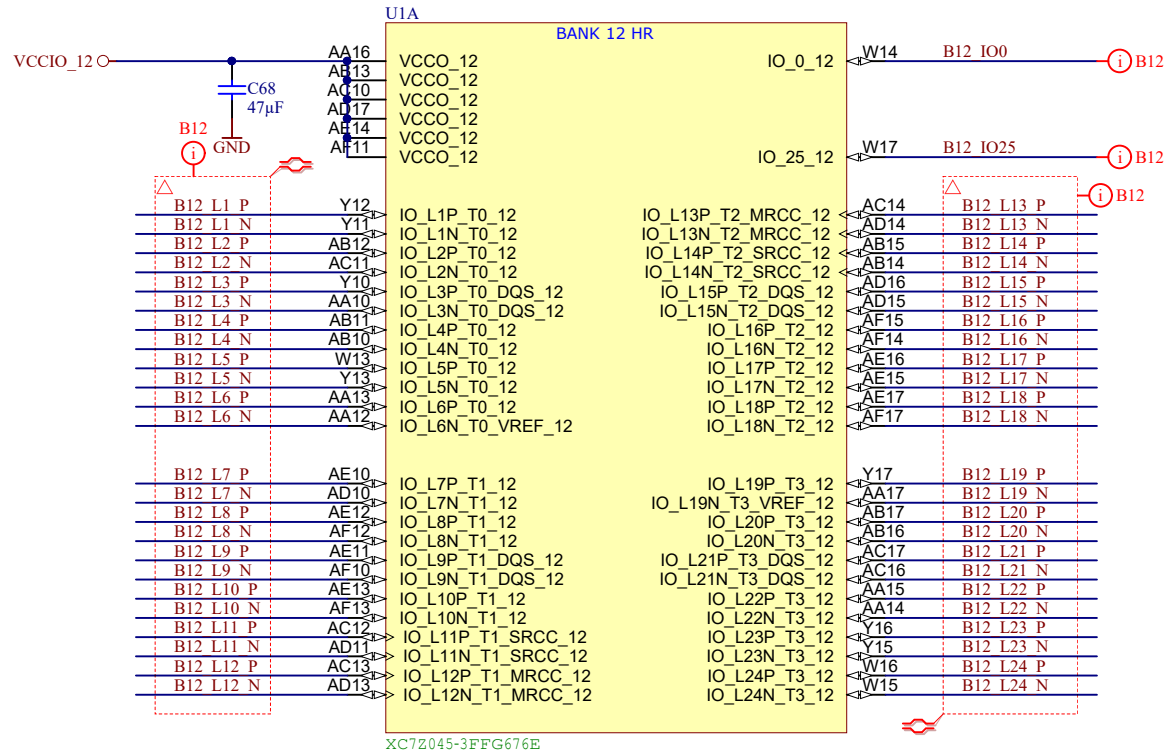
3

4

	Title: TE0745 - Zynq		
	A4	Number: 6 93E11-A	Rev. 02
	Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page6 of 25
	Filename: ZYNQ.SchDoc		



Title: TE0745 - Zynq_MISC		
A4	Number: 7 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 7 of 25
Filename: ZYNQ_MISC.SchDoc		

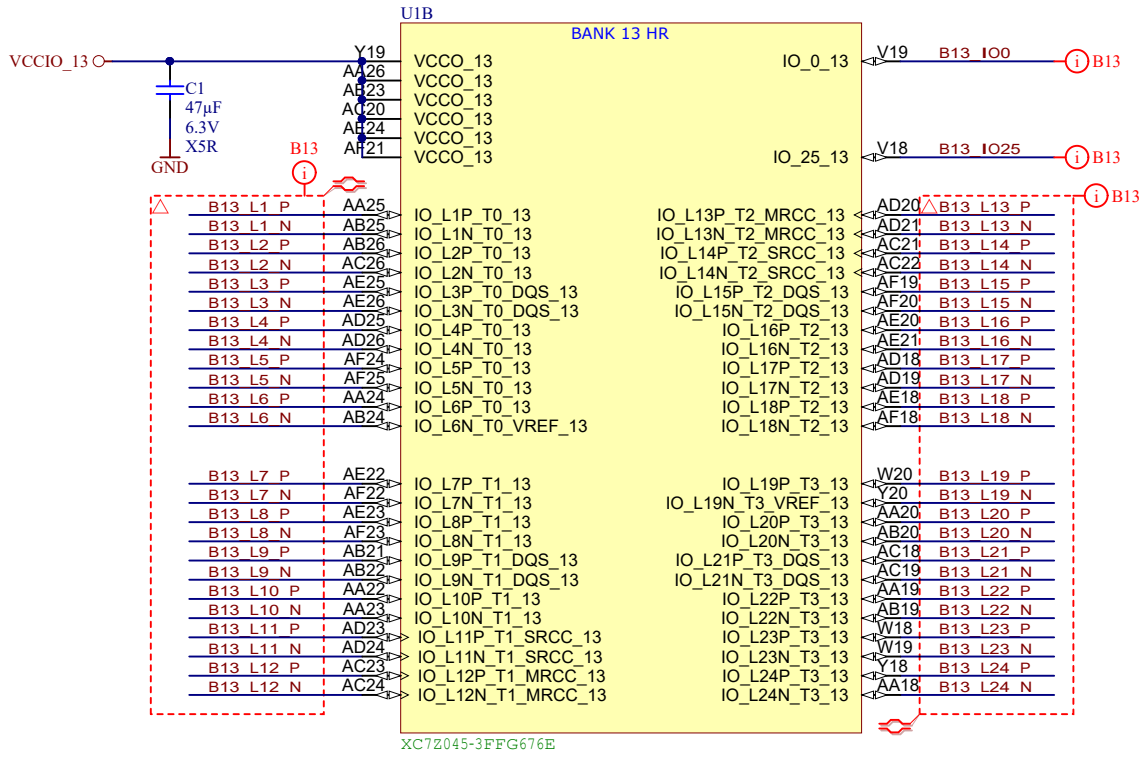


XC7Z045-3FFG676E

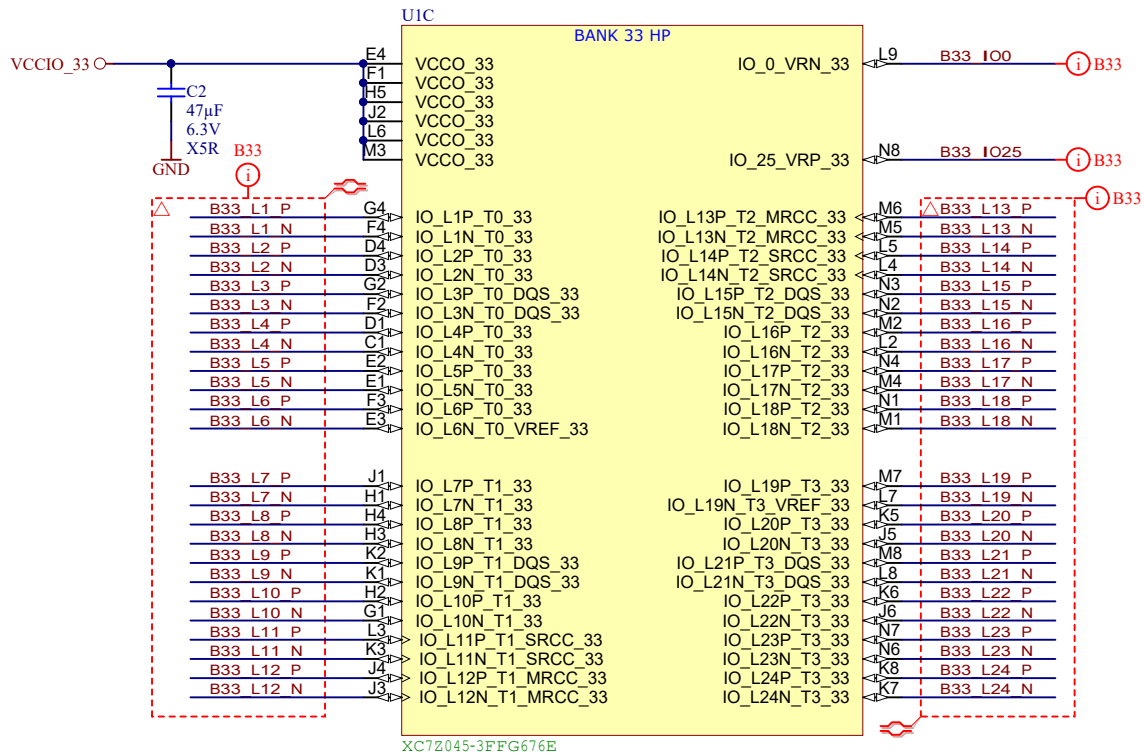


Title: TE0745 - Zynq_B12		
A4	Number: 8 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 8 of 25
Filename: B12.SchDoc		

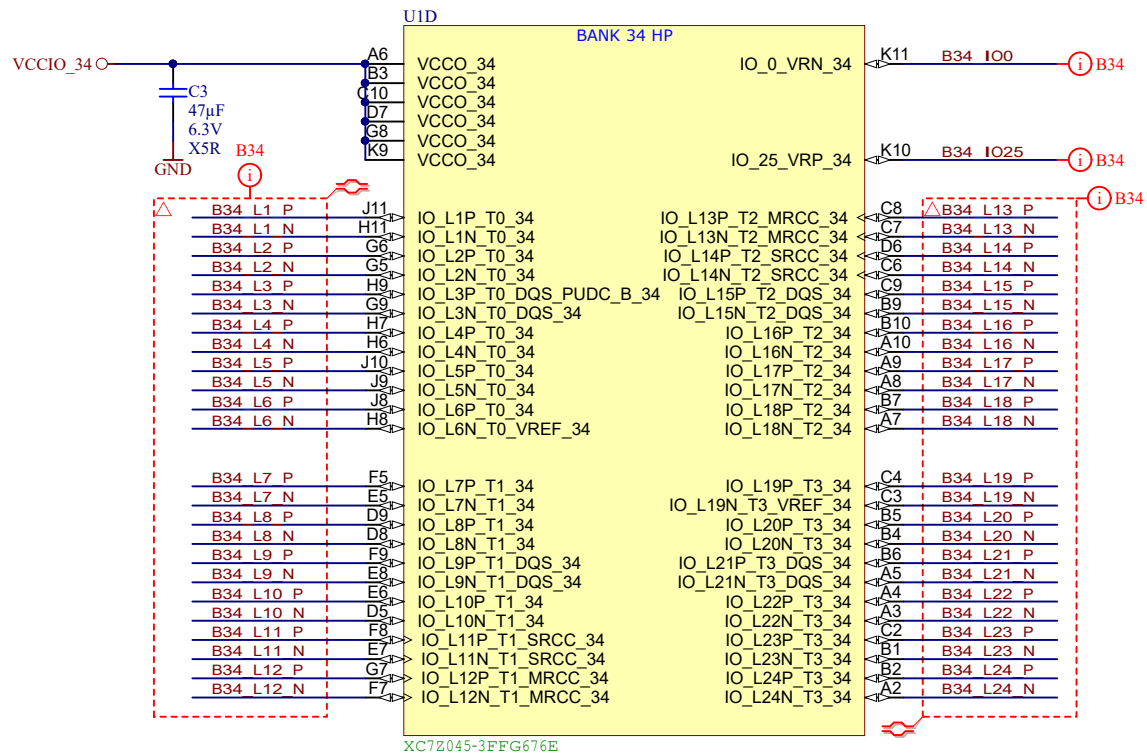




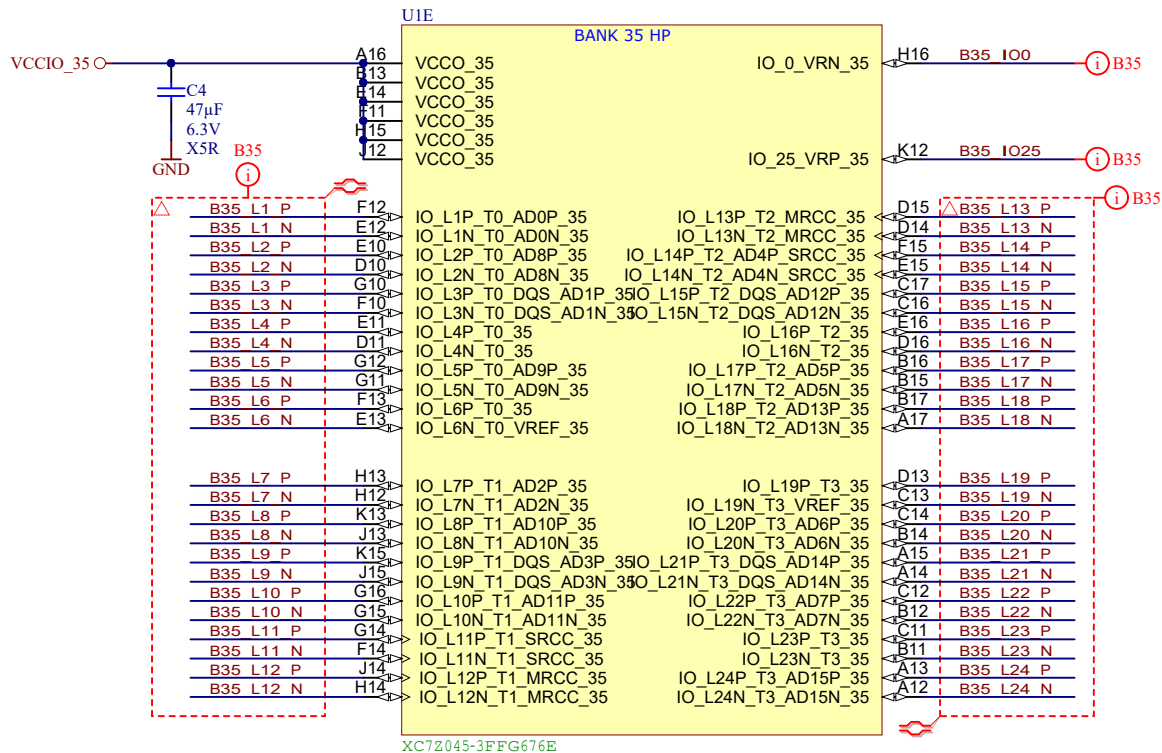
Title: TE0745 - Zynq_B13		
A4	Number: 9 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page9 of 25
Filename: B13.SchDoc		



Title: TE0745 - Zynq_B33		
A4	Number: 10 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page10 of 25
Filename: B33.SchDoc		



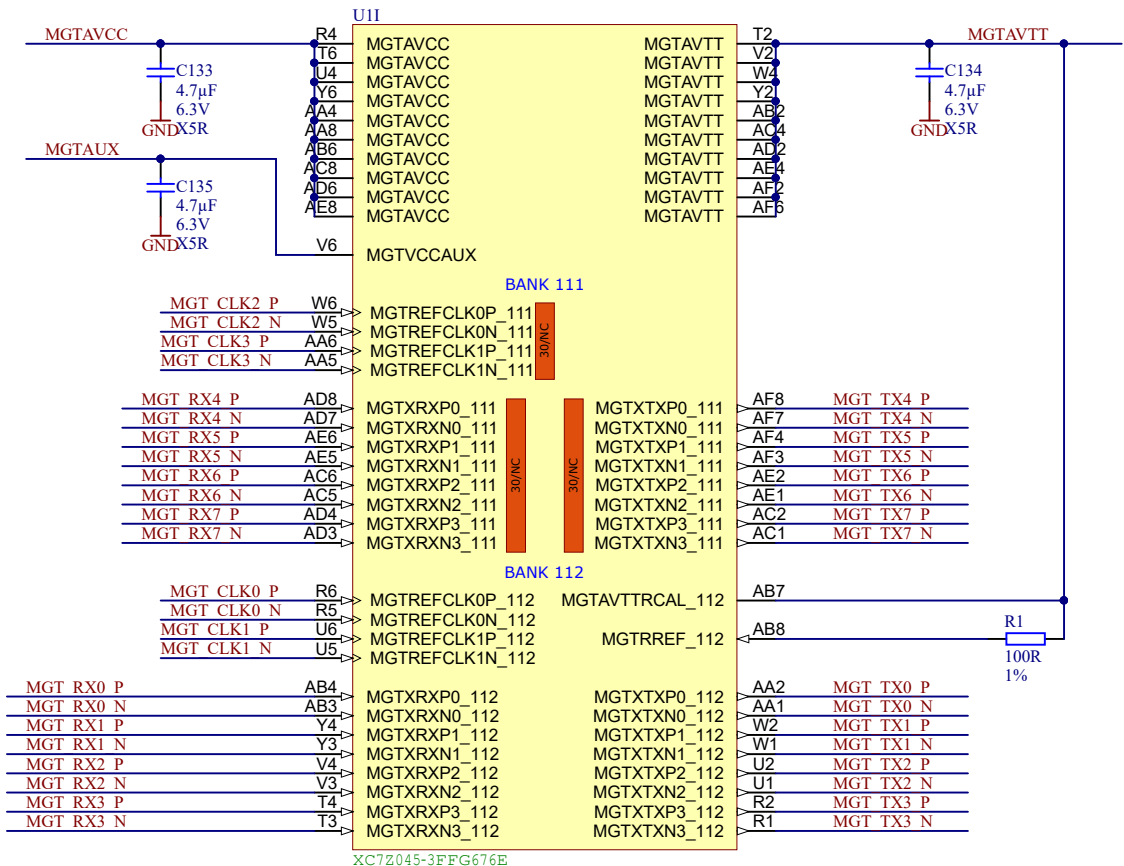
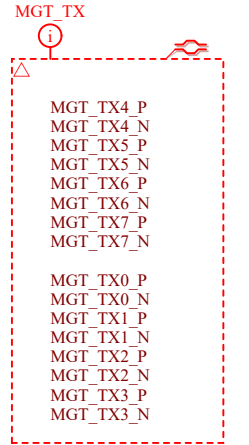
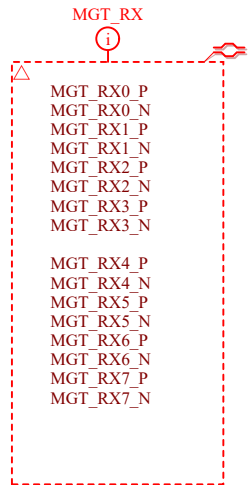
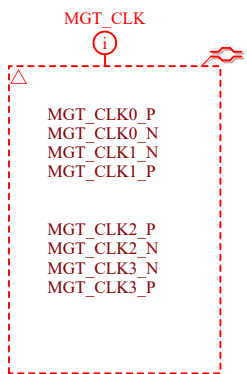
Title: TE0745 - Zynq_B34		
A4	Number: 11 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 11 of 25
Filename: B34.SchDoc		



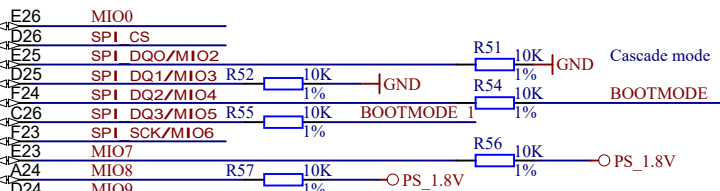
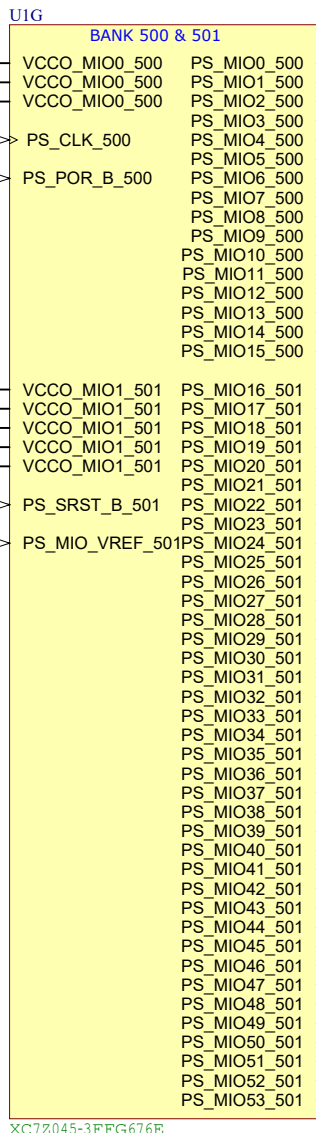
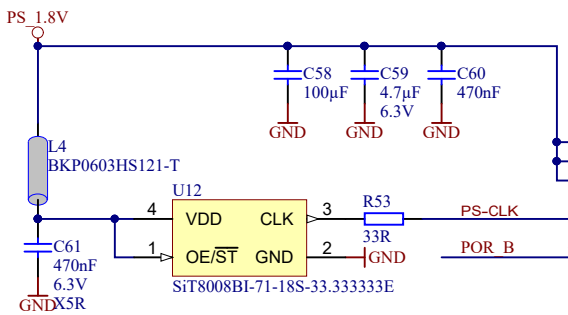
XC7Z045-3FFG676E



Title: TE0745 - Zynq_B35		
A4	Number: 12 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 12 of 25
Filename: B35.SchDoc		

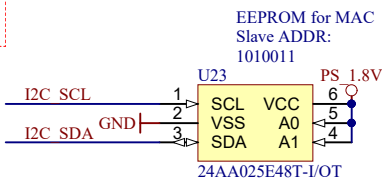
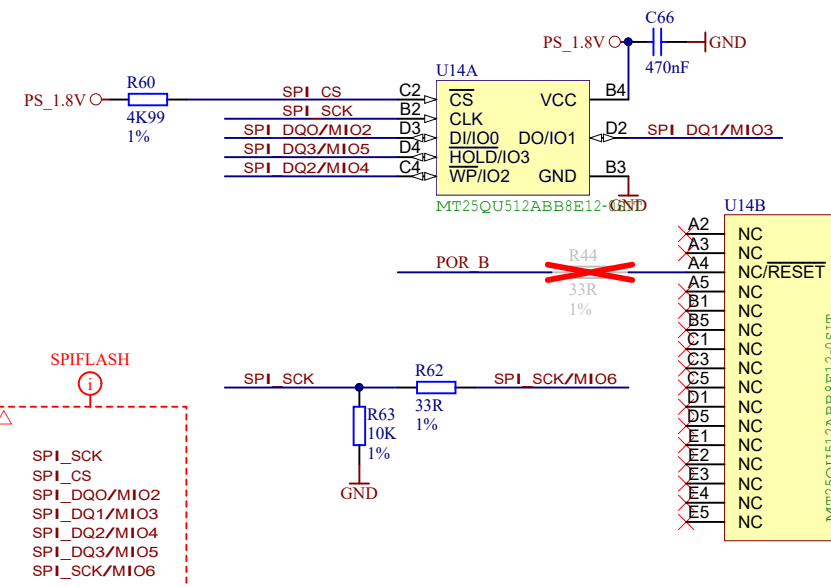
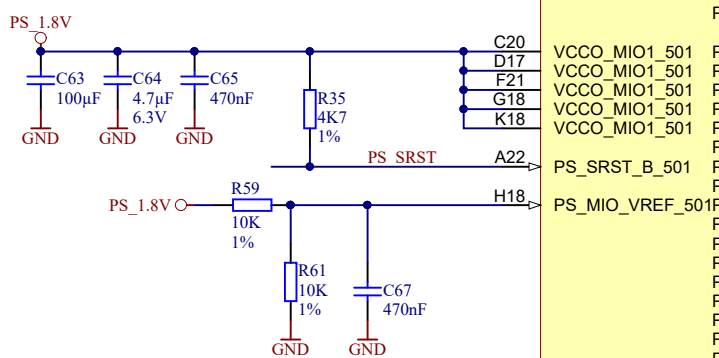


Title: TE0745 - Zynq_MGT		
A4	Number: 13 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 13 of 25
Filename: FPGA_MGT.SchDoc		

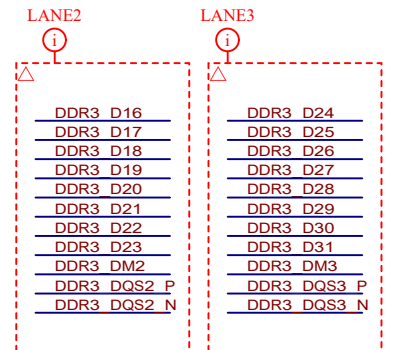
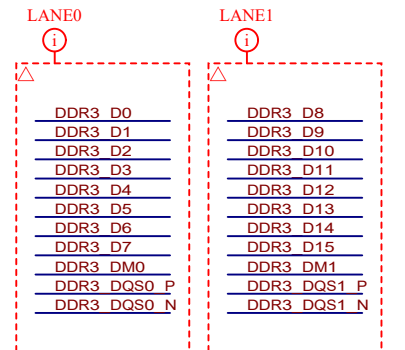
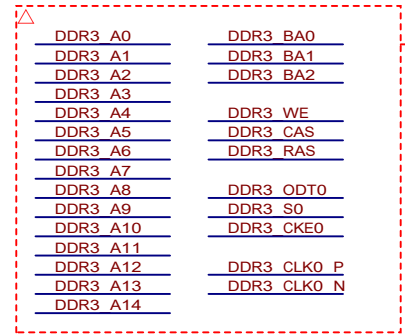
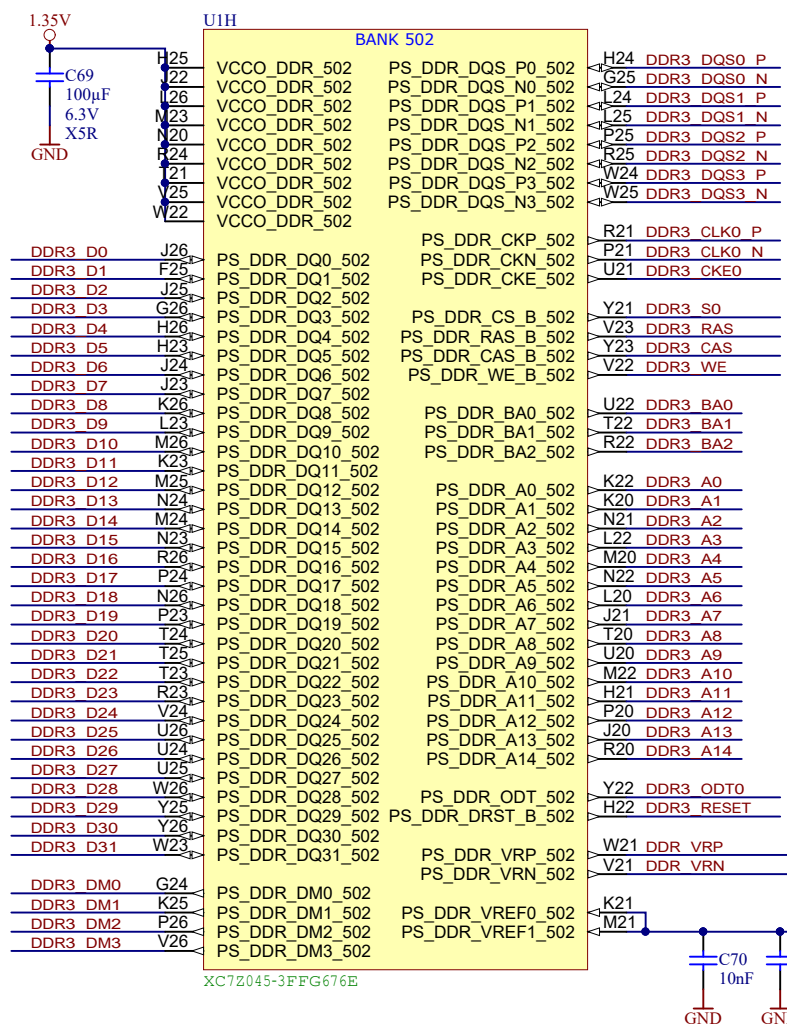


MIO Bank Voltage	MIO7   Bank0	MIO8   Bank1
2.5V, 3.3V	0	0
1.8V	1	1

BOOT MODE	MIO5   MIO4   MIO3
JTAG Boot Mode	0   0   0
NOR Boot	0   0   1
NAND	0   1   0
Quad-SPI	1   1   0
SD Card	1   1   0



Title: TE0745 - Zynq_MIO_Banks		
A4	Number: 14 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 14 of 25
Filename: MIO_B500.SchDoc		

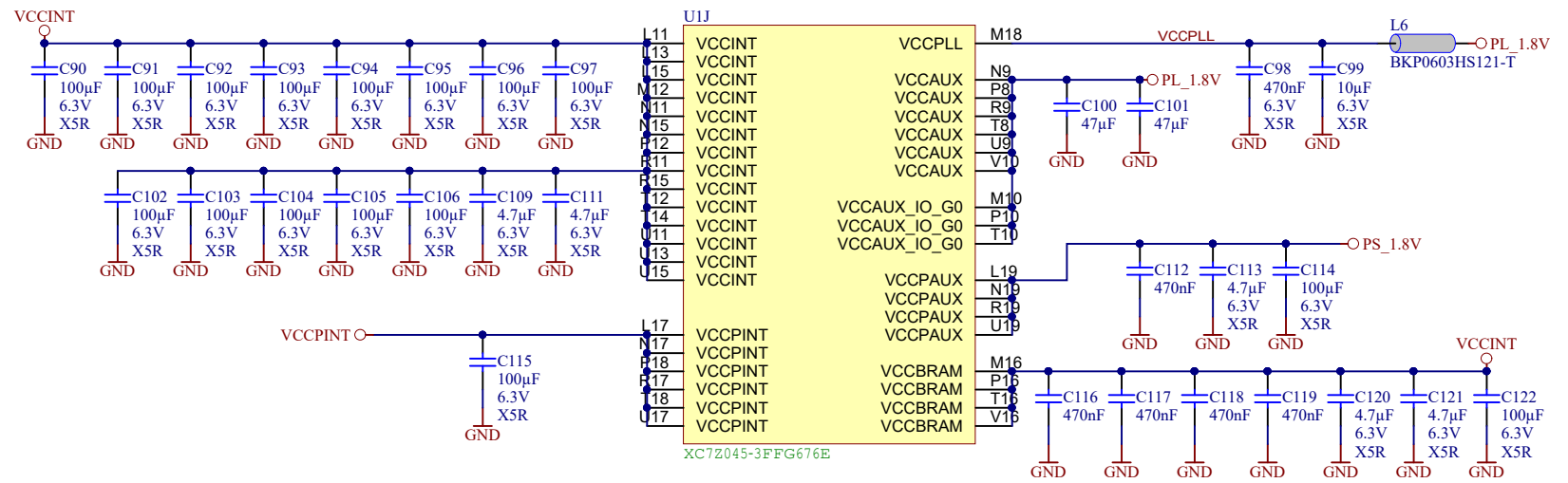


Title: TE0745 - Zynq_PS_DDR		
A4	Number: 15 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 15 of 25
Filename: PS-DDR.SchDoc		

UIK

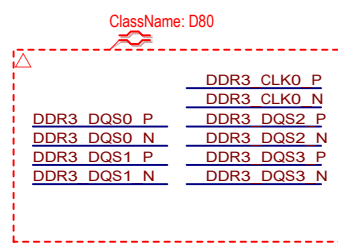
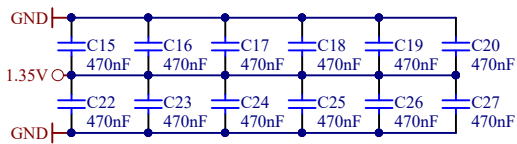
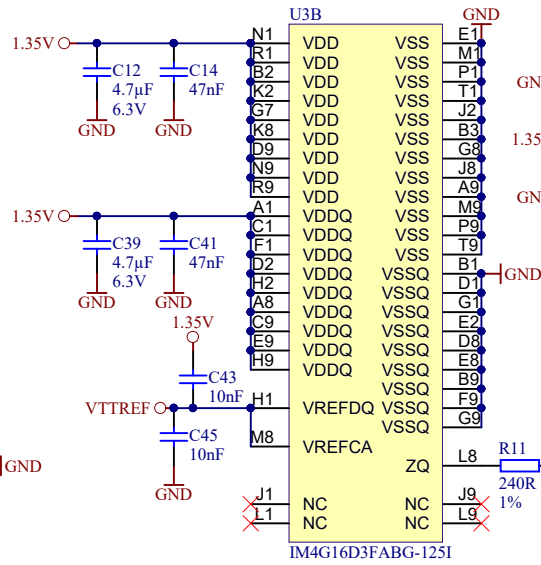
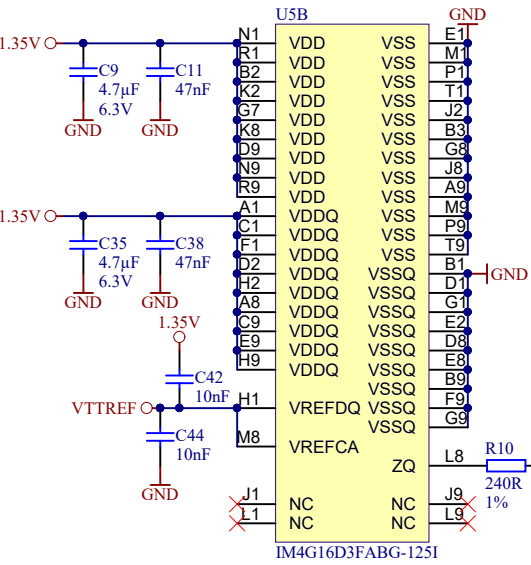
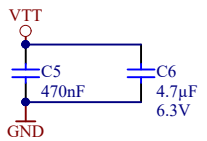
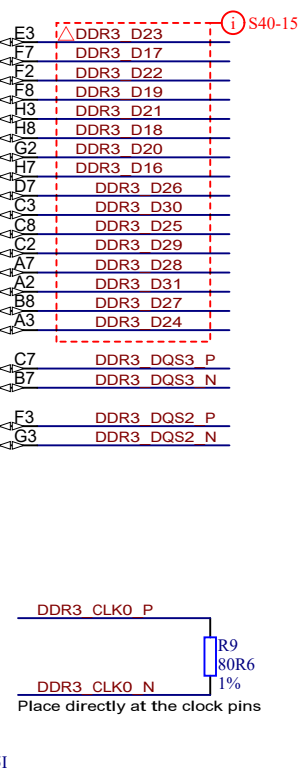
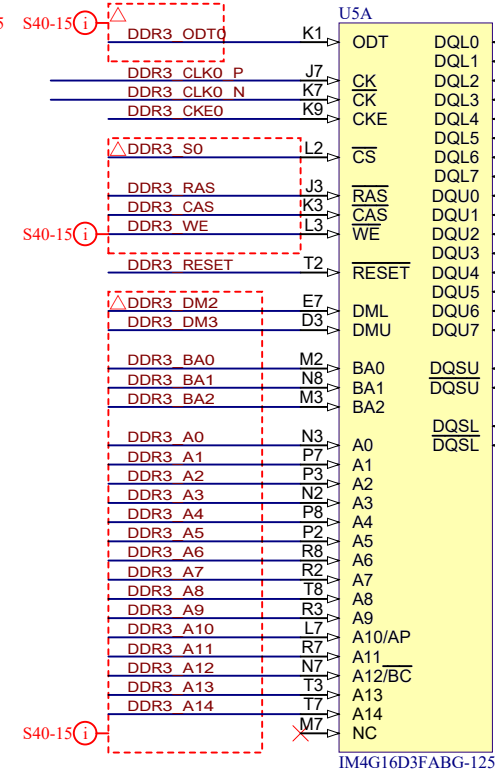
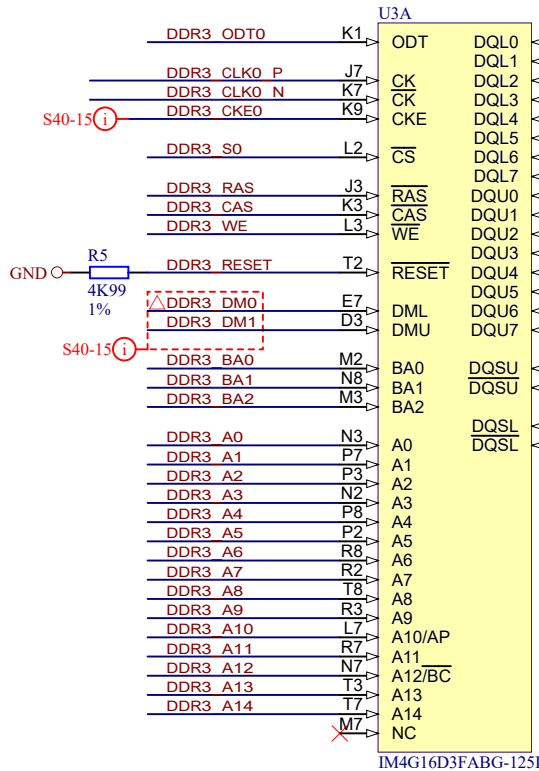
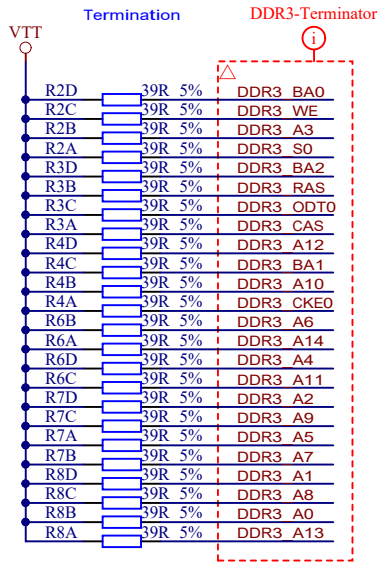
A1	GND	GND	R16
A11	GND	GND	R18
A21	GND	GND	T11
B8	GND	GND	T5
B18	GND	GND	T9
C5	GND	GND	T1
C15	GND	GND	T13
C25	GND	GND	T15
D2	GND	GND	T17
D12	GND	GND	T19
D22	GND	GND	T26
E9	GND	GND	U3
E19	GND	GND	U7
F6	GND	GND	U10
F26	GND	GND	U12
G3	GND	GND	U14
G13	GND	GND	U16
G23	GND	GND	U18
H10	GND	GND	U28
H20	GND	GND	V1
J7	GND	GND	V5
J17	GND	GND	V7
K4	GND	GND	V17
K14	GND	GND	V20
L24	GND	GND	W3
L1	GND	GND	W7
L10	GND	GND	Y1
L12	GND	GND	Y5
L14	GND	GND	Y7
L16	GND	GND	Y8
L18	GND	GND	Y9
L21	GND	GND	Y14
L21	GND	GND	Y24
M9	GND	GND	AA3
M11	GND	GND	AA7
M15	GND	GND	AA9
M17	GND	GND	AA11
M19	GND	GND	AA21
N5	GND	GND	AB1
N10	GND	GND	AB5
N12	GND	GND	AB9
N16	GND	GND	AB18
N18	GND	GND	AC3
N25	GND	GND	AC7
P1	GND	GND	AC9
P2	GND	GND	AC15
P3	GND	GND	AC25
P4	GND	GND	AD1
P5	GND	GND	AD5
P6	GND	GND	AD9
P7	GND	GND	AD12
P9	GND	GND	AD22
P11	GND	GND	AE3
P15	GND	GND	AE7
P17	GND	GND	AE9
P19	GND	GND	AE19
P22	GND	GND	AF1
R3	GND	GND	AF5
R7	GND	GND	AF9
R10	GND	GND	AF16
R12	GND	GND	AF26

XC7Z045-3FFG676E



Title: TE0745 - Zynq_Power		
A4	Number: 16 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 16 of 25
Filename: ZYNC_POWER.SchDoc		





Title: <b>TE0745 - DDR3 RAM</b>		
A4	Number: <b>17</b> <b>93E11-A</b>	Rev. <b>02</b>
Date: <b>2016-04-28</b>	Copyright: <b>Trenz Electronic GmbH</b>	Page <b>17</b> of <b>25</b>
Filename: <b>DDR3-RAM.SchDoc</b>		

1

2

3

4

A

A

B

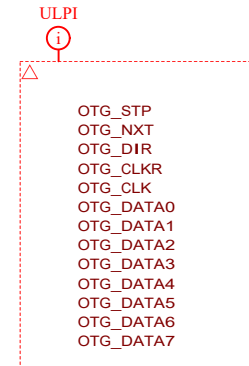
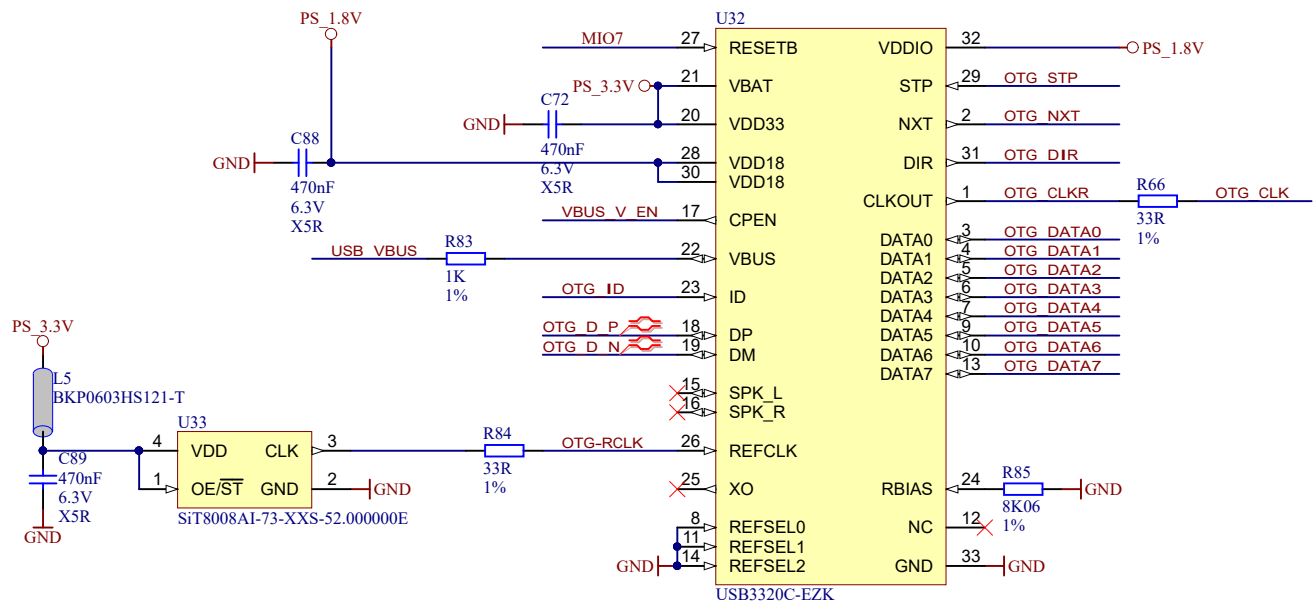
B

C

C

D

D



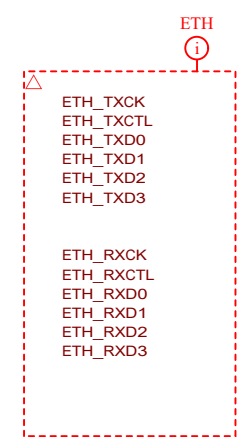
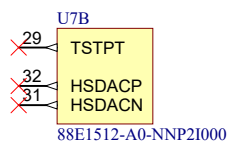
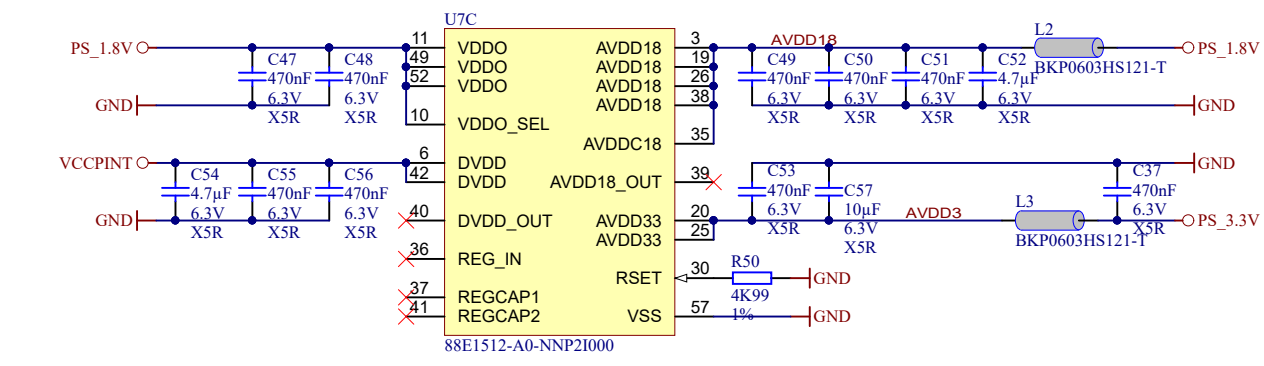
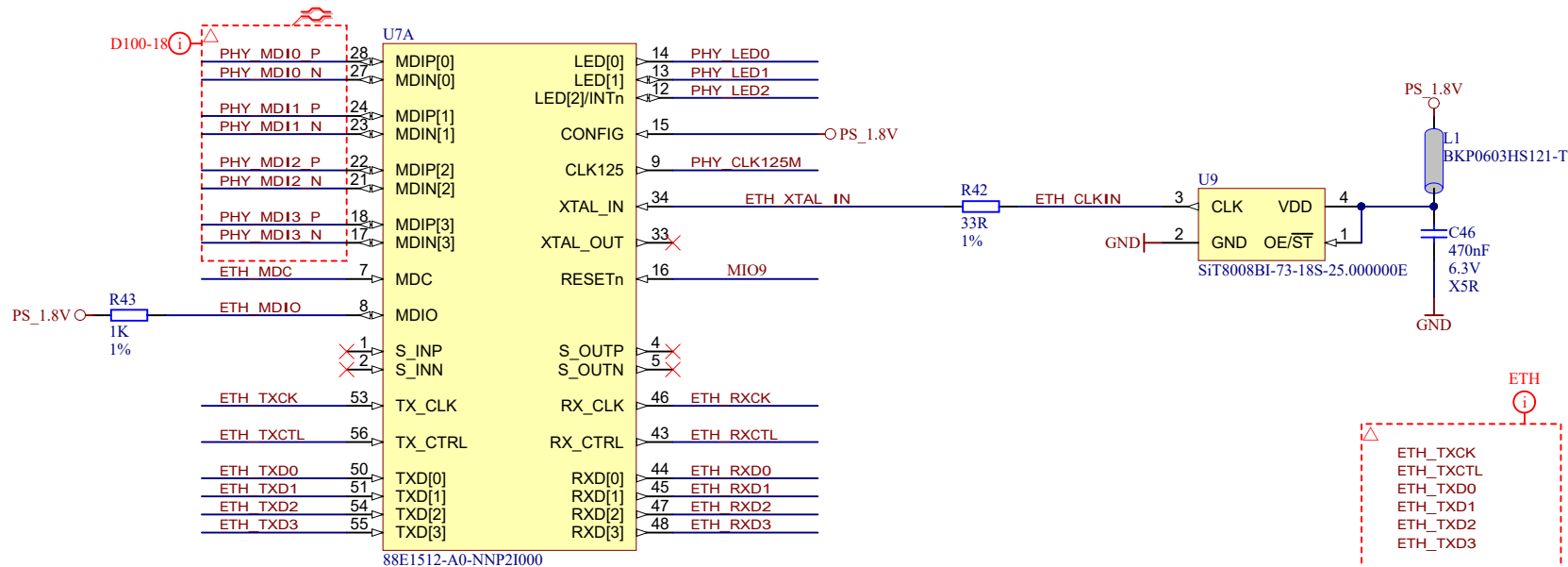
Title: TE0745 - USB_PHY		
A4	Number: 18 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 18 of 25
Filename: USB-PHY.SchDoc		


1

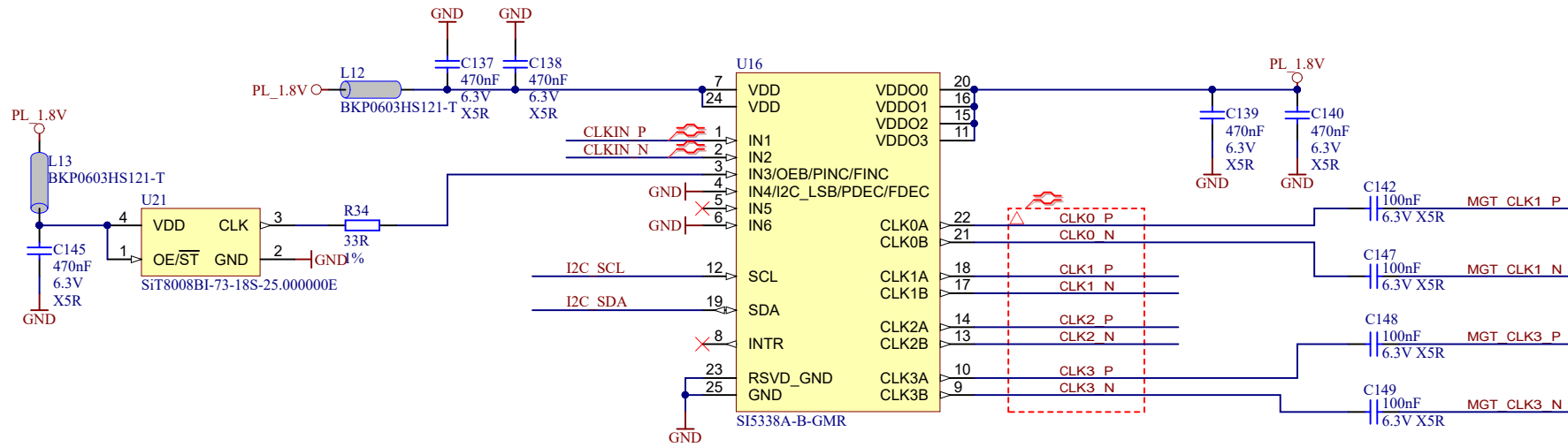
2

3


4

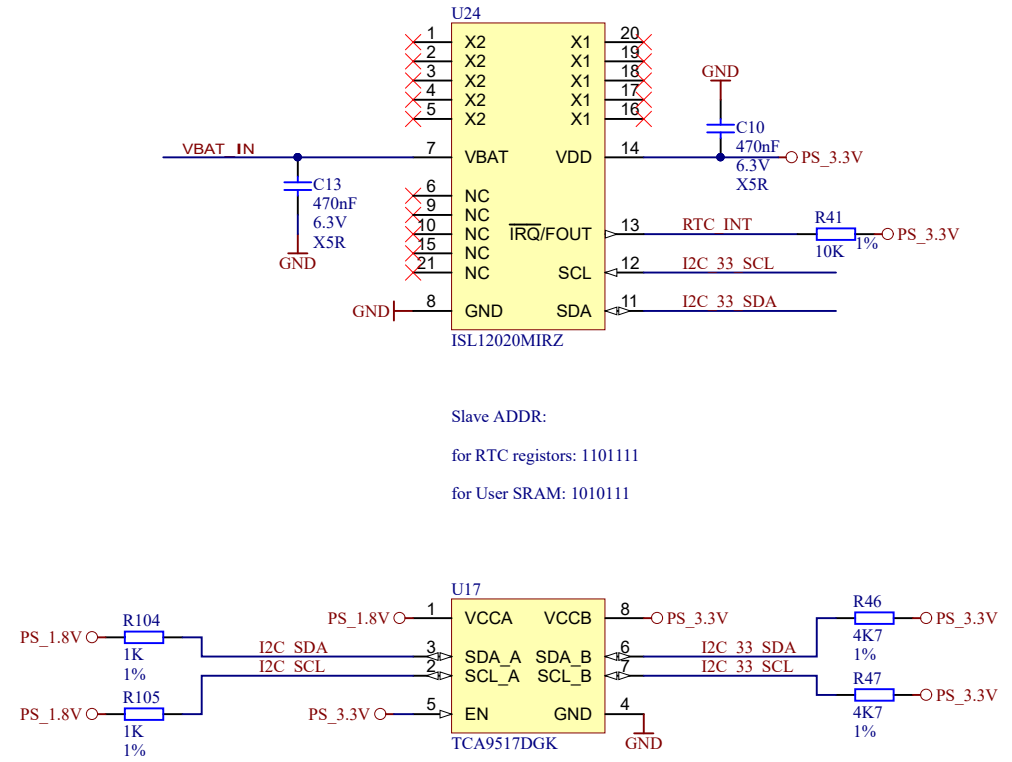


			Title: TE0745 - ETH_PHY	
			A4	Number: 19 93E11-A
Date: 2016-04-28		Copyright: Trenz Electronic GmbH / TT		Page 19 of 25
Filename: ETH-PHY.SchDoc				

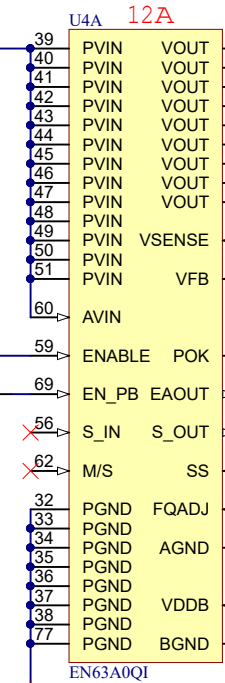
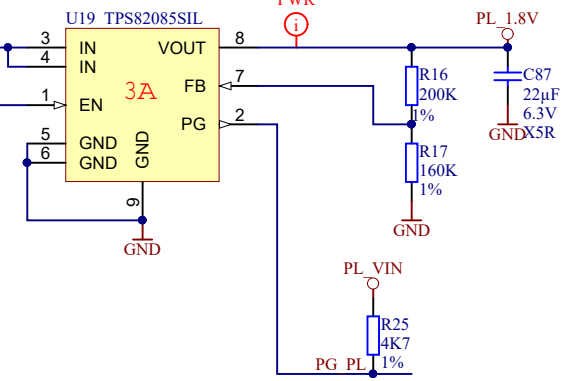
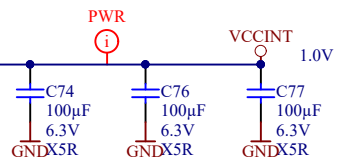
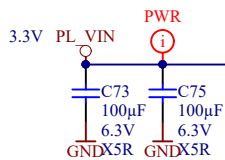


Slave ADDR:  
1110000 OR 1110001

		Title: TE0745 - CLK	
		A4	Number: 20 93E11-A
Date: 2016-04-28		Copyright: Trenz Electronic GmbH / TT	
Filename: CLK.SchDoc		Page 20 of 25	



Title: TE0745 - RTC		
A4	Number: 21 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page21 of 25
Filename: SENSOR-RTC.SchDoc		



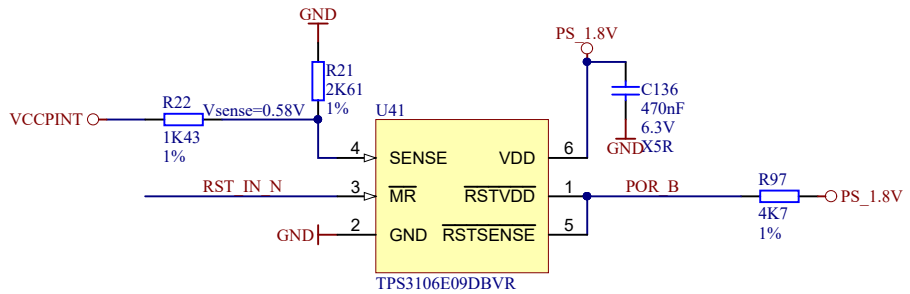
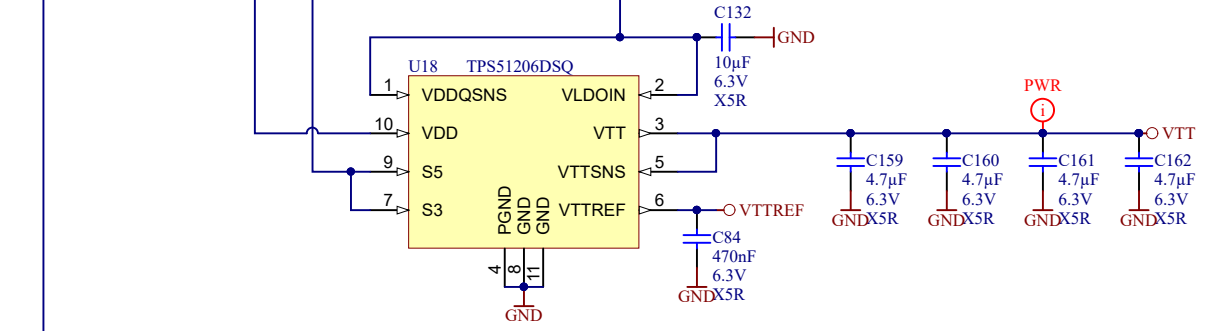
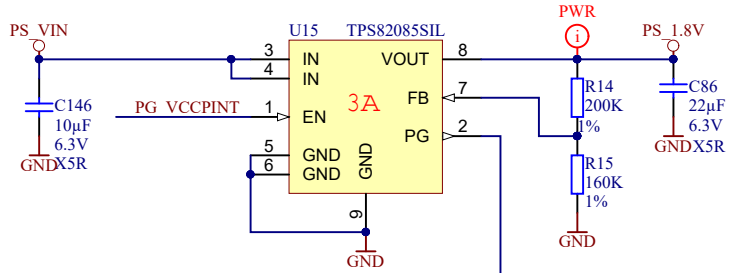
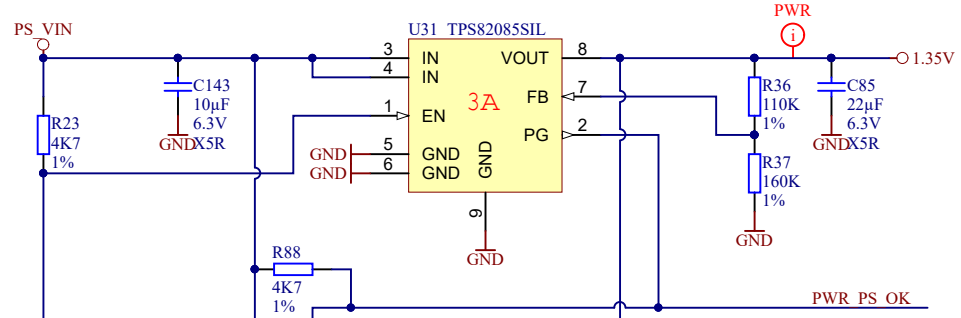
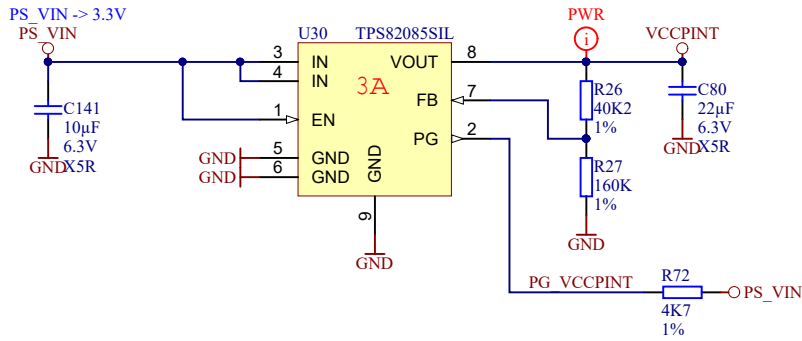
**Pre-bias assembly option**

R39	R40	MODE	EN63A0QI
OK	X		enable pre-bias start-up
X	OK		disable pre-bias start-up

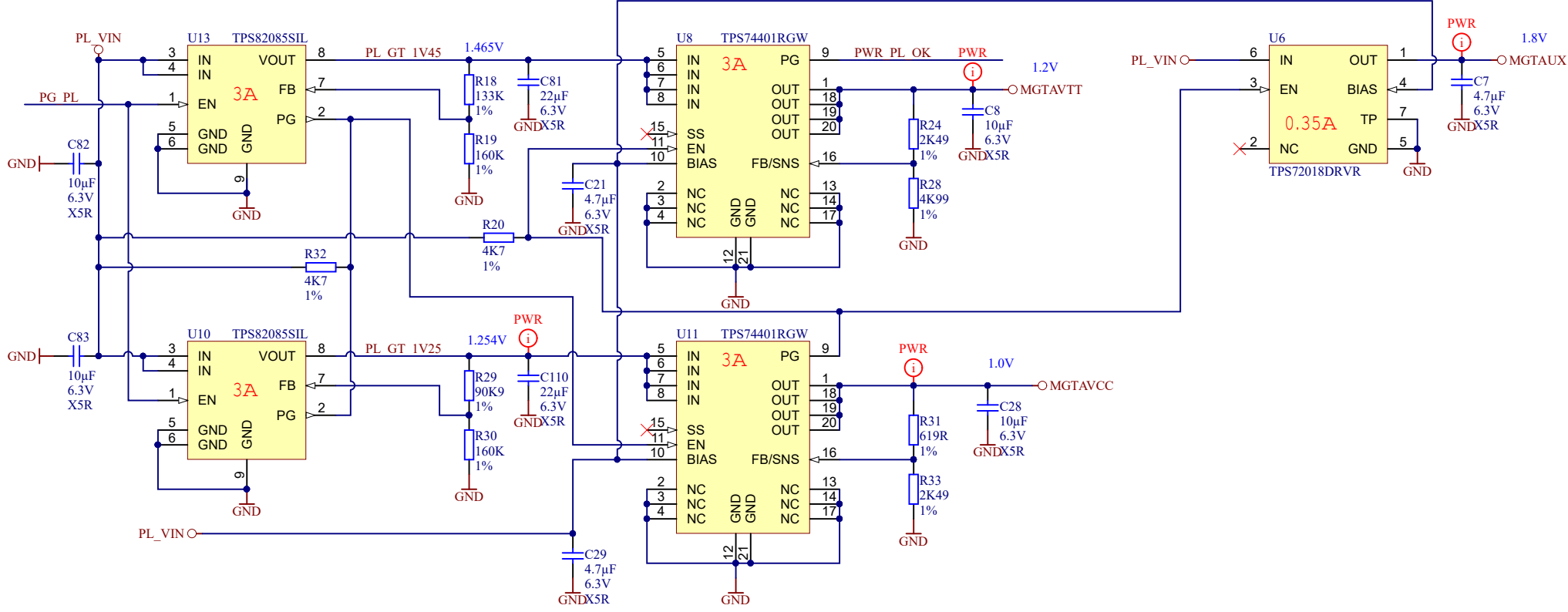
Soft start 3ms



Title: TE0745 - Power		
A4	Number: 22 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 22 of 25
Filename: POWER.SchDoc		

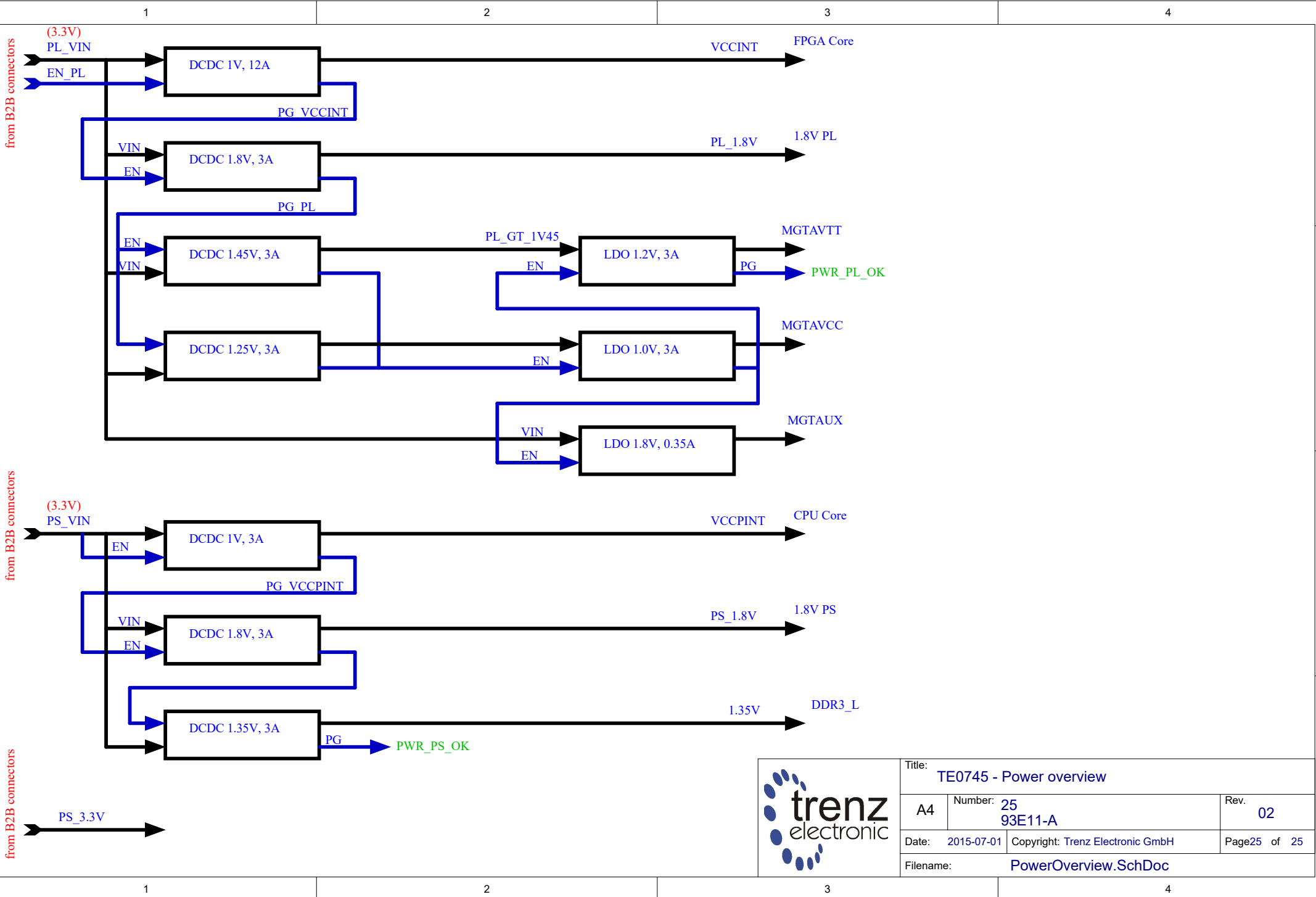


	Title: TE0745 - Power2		
	A4	Number: 23 93E11-A	Rev. 02
	Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page23 of 25
	Filename: POWER_2.SchDoc		



Title: TE0745 - Power3		
A4	Number: 24 93E11-A	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page24 of 25
Filename: POWER_3.SchDoc		





Title: TE0745 - Power overview		
A4	Number: 25 93E11-A	Rev. 02
Date: 2015-07-01	Copyright: Trenz Electronic GmbH	Page 25 of 25
Filename: PowerOverview.SchDoc		